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Sediments Remediation Action Team

RTDF

Remediation Technologies Development Forum

RTDF Action Teams

Lasagna™ Partnership

Bioremediation Consortium

Permeable Reactive Barriers Action Team

IINERT Soil-Metals Action Team

***In Situ* Flushing Action Team**

Phytoremediation of Organics Action Team

What Is the Sediments Remediation Action Team?

The Sediments Remediation Action Team was established in March 1996 as one of the seven Action Teams under the Remediation Technologies Development Forum (RTDF). The RTDF was created by the U.S. Environmental Protection Agency (EPA) in 1992 to foster collaboration between the public and private sectors in finding innovative solutions to mutual hazardous waste problems. The Sediments Remediation Action Team includes representatives from industry, government, and academia who share an interest in developing alternatives for remediating contaminated sediments.

What Is the Problem of Concern?

Contaminated sediments, both in freshwater and marine systems, are a significant issue in the United States and abroad. Remediation of sediments is often complex and is usually compounded by the presence of more than one contaminant at a site. Sediments often contain polycyclic aromatic hydrocarbons (PAHs) and metals. Many traditional remediation techniques, such as dredging and subsequent off-site treatment, are not cost-effective, and proper assessment, which is critical for implementation of a remediation strategy, also may be difficult and costly.

What Is the Action Team's Mission?

The mission of the Sediments Remediation Action Team is to develop cost-effective, on-site technologies to remediate contaminated sediments and enable recovery of biological systems. The Action Team is exploring a number of potential focus areas, including:

- Developing *in situ* remediation approaches
- Evaluating on-site, *ex situ* remediation technologies
- Examining the applicability of existing soil remediation techniques to sediments
- Understanding the mechanisms and rates of natural attenuation
- Enhancing or developing procedures for evaluating the need for and success of remedial activities

What Processes Will Be Studied?

The Action Team has developed subgroups to focus on the following three areas of interest:

Assessment—This area includes the evaluation of hazard, stress, and exposure resulting from sediment-associated contaminants. Information required for the human and ecological risk assessment paradigms includes (but is not limited to) toxicity, transport, and the ability of the sediment (biotic and abiotic) to naturally attenuate the contaminants.

***In Situ* Containment/Capping**—*In situ* capping as a remediation alternative involves placement of a covering or cap of clean isolating material (e.g., sediment, sand, gravel, geotextiles, etc.) over a deposit of contaminated sediment to isolate it physically and chemically from the aquatic environment.

***In Situ* Treatment**—A number of *in situ* remediation technologies are under consideration by the subgroup, including natural attenuation, phytoremediation, introduction of chemical additives to enhance the natural processes, and electrokinetics. The subgroup is most interested in passive technologies that will remediate the contaminants without significantly increasing the stress on the ecology.

The efforts of the three subgroups will be coordinated to create a cohesive research team.

What Activities Are Planned?

The Action Team is identifying sites at which a cooperative field effort may be pursued. Team members are evaluating the resources, experience, and facilities they can make available to carry out a field effort.

Who Are the Action Team Members?

U.S. Army Corps of Engineers
U.S. Department of Defense
U.S. Environmental Protection Agency
U.S. Naval Facilities Engineering Services Center
U.S. Naval Research Laboratory

ARCO
Chevron
Ciba-Geigy
Dow
DuPont
EPRI
Exxon
Gas Research Institute
General Electric
ICI Americas
Monsanto
PPG Industries
Rohm and Haas
Shell
Solutia, Inc.
Texaco
Zeneca

University of Michigan

RTDF

Remediation Technologies Development Forum

Would You Like More Information?

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For information on the RTDF or other Action Teams, please visit the RTDF World Wide Web site at www.rtdf.org or contact:

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